

D. Fox

1649 #6

PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/079,640

DATE: 08/05/1999
TIME: 15:13:01

INPUT SET: S32803.raw

This Raw Listing contains the General
Information Section and up to the first 5 pages.

ENTERED

SEQUENCE LISTING

1
2
3 (1) General Information:

4

5 (i) APPLICANT: Daniell, Henry

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7 (ii) TITLE OF INVENTION: UNIVERSAL CHLOROPLAST INTEGRATION AND
8 EXPRESSION VECTORS, TRANSFORMED PLANTS AND PRODUCTS
9 THEREOF

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11 (iii) NUMBER OF SEQUENCES: 18

12

13 (iv) CORRESPONDENCE ADDRESS:

14 (A) ADDRESSEE: WEISER & ASSOCIATES
15 (B) STREET: 230 South Fifteenth Street, Suite 500
16 (C) CITY: Philadelphia
17 (D) STATE: PA
18 (E) COUNTRY: USA
19 (F) ZIP: 19102

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21 (v) COMPUTER READABLE FORM:

22 (A) MEDIUM TYPE: Floppy disk
23 (B) COMPUTER: IBM PC compatible
24 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
25 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30

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27 (vi) CURRENT APPLICATION DATA:

28 (A) APPLICATION NUMBER: US 09/079,640
29 (B) FILING DATE: 15-MAY-1998
30 (C) CLASSIFICATION:

31

32 (viii) ATTORNEY/AGENT INFORMATION:

33 (A) NAME: Weiser, Gerard J.
34 (B) REGISTRATION NUMBER: 19,763
35 (C) REFERENCE/DOCKET NUMBER: 922.6588P

36

37 (ix) TELECOMMUNICATION INFORMATION:

38 (A) TELEPHONE: 215-875-8383
39 (B) TELEFAX: 215-875-8394

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42 (2) INFORMATION FOR SEQ ID NO:1:

43

44 (i) SEQUENCE CHARACTERISTICS:

45 (A) LENGTH: 2050 base pairs
46 (B) TYPE: nucleic acid

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47 (C) STRANDEDNESS: single
48 (D) TOPOLOGY: linear
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50 (ii) MOLECULE TYPE: DNA (genomic)
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52 (vi) ORIGINAL SOURCE:
53 (A) ORGANISM: Soybean
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57 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
58

59	GTACACACCG CCCGTCACAC TATGGGAGCT GGCCATGCCG AAGTCGTTAC CTTAACCGCA	60
61	AGAGGGGGAT GCCGAAGGCA GGGCTAGTGA CTGGAGTGAA GTCGTAACAA GGTAGCCGTA	120
62	CTGGAAGGTG CGGCTGGATC ACCTCCTTTT CAGGGAGAGC TAATGCTTGT TGGGTAGTTT	180
63	AGTTTGACAC TGCTTCACAC CCAAAAAGAA GCGAGTTATG TCTGAGTCAA ATTTGGAGAT	240
64	GGAAGTCTTC TTTCGTTTCT CGATGGTGA GTAAAGACTAA ACTCATGAGC TTATTATCCT	300
65	AGGTCGGAAC AAGTTGATAG GAGCTACTTT TTTCACCCCC ATATGGGGT GAAAAAAAGGA	360
66	AAGAGAGGGA TGGGGTTTCT CTTGCTTTG GCATAGCGGG CCCCGGCGGG AGGCCCGCAC	420
67	GACGGGCTAT TAGCTCAGTG GTAGAGCGCG CCCCTGATAA TTGCGTCGTT GTGCCTGGAC	480
68	TGTGAGGGCT CTCAGCCACA TGGATAGTTT AATGTGCTCA TCGGCGCCTG ACCCTGAGAT	540
69	GTGGATCATC CAAGGCACAT TAGCATGGCG TACTTCTCCT GTTGAACCG GGGTTTGAAA	600
70	CCAAACTTAT CCTCAGGAGG ATAGATGGGG CGATTTCAGGT GAGATCCAAT GTAGATCCAA	660
71	CTTTCTCTTC ACTCGTGGGA TCCGGCGAT CCGGGGGGGA CCACCAACGGC TCCTCTCTTC	720
72	TCGAGAATTTC ATACATCCCT TATCAGTATA TGGACAGTTA TCTCTCGAGC ACAGGTTTAG	780
73	GTTTGGCCTC AATGGAAAAA AACGGGACAC CTAACAACGT ATCTTCACAG ACCAAGAACT	840
74	ACGAGATCGC CCCTTTCATT CTGGGGTGAC GGTGGGATCG TACCATTCGA GCCTGGGAGC	900
75	AGGTTGAAA AAGGATCTTA GAGTGTCTAG GGTTGTGCTA GGAGGGTCTC ATAATGCCTT	960
76	CCTTTTCTT CTCATCGGAG TTATTTCCCA AAGACTTGCC ATGGTAAAGA AGAAGGGGGA	1020
77	ACAAGCACAC TTGGAGAGCG CAGTACAACG GATAGTTGTA TGCTGCGTTC GGGAAAGGATG	1080
78	AATCGCTCCC GAAAAGGAAT CTATTGATTTC TCTCCCAATT GGTTGGACTG TAGGTGCGAT	1140
79	GATTTACTTC ACGGGCGAGG TCTCTGGTTC AAGTCCAAGA TGGCCCAGCT GCGTCAAGGA	1200
80	AAAGAATAGA AAACTGACTT GACTCCTTCA TGCATGCTCC ACTCGGCTCG GGGGGATATA	1260

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PATENT APPLICATION US/09/079,640DATE: 08/05/1999
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100 GCTCAGTTGG TAGAGCTCCG CTCTTGCAAT TGGGTCGTTG CGATTACGGG TTGGATGTCT 1320
101
102 AATTGTCTAG GCGGTAATGA TAGTATCTTG TACCTGAACC GGTGGCTCAC TTTTCCTAAG 1380
103
104 TAATGGAAA GAGGACCGAA ACATGCCACT GAAAGACTCT ACTGAGACAA AGACGGGCTG 1440
105
106 TCAAGAACGT AGAGGAGGTA GGATGGGCAG TTGGTCAGAT CTAGTATGGA TCGTACATGG 1500
107
108 ACGGTAGTTG GAGTCGGTGG CTCTCCTAGG GTTTCCTCAT TTGGGATCCT GGGGAAGAGG 1560
109
110 ATCAAGCTGG CCCTTGCGAA CAGCTTGATG CACTATCTCC CTTCAACCCCT TTGAGCGAAA 1620
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112 TGTGGCAAAA GGAAAAGAA TCCATGGACC GACCCCATCG TCTCCACCCC GTAGGAACTA 1680
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114 CGAGATCACC CCAAGGAACG CCTTCGGCAT CCAGGGGTGCG CGGACCGACC ATAGAACCCCT 1740
115
116 GTTCAAAAAG CGGAACGCAT TAGCTATCCG CTCTCAGGTT GGACAGTAAG GGTCGGAGAA 1800
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118 GGGCAATCAC TCATTCTTAG TTAGAATGGG ATTCCAACTC AGCACCTTTT GAGATTTGA 1860
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120 GAAGAGTTGC TCTTTGGAGA GCACAGTACG ATGAAAGTTG TGAGCTGTGT TCGGGGGGGA 1920
121
122 GTTATTGTCT ATCGTTGGCC TCTATGGTAG AATCAGTCGG GGCCTGAGAG GCGGTGGTTT 1980
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124 ACCCTGTGGC GGATGTCAGC GGTCGAGTC CGCTTATCTC CAACTCGTGA ACTTAGTCGA 2040
125
126 TACAAAGCTA 2050
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129 (2) INFORMATION FOR SEQ ID NO:2:
130
131 (i) SEQUENCE CHARACTERISTICS:
132 (A) LENGTH: 2103 base pairs
133 (B) TYPE: nucleic acid
134 (C) STRANDEDNESS: single
135 (D) TOPOLOGY: linear
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137 (ii) MOLECULE TYPE: DNA (genomic)
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139 (vi) ORIGINAL SOURCE:
140 (A) ORGANISM: Tobacco
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144 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
145
146 GTACACACCG CCCGTCACAC TATGGGAGCT GGCCATGCC GAACTCGTTA CCTTAACCGC 60
147
148 AAGGAGGGGG ATGCCGAAGG CAGGGCTAGT GACTGGAGTG AAGTCGTAAC AAGGTAGCCG 120
149
150 TACTGGAAGG TGCAGCTGGA TCACCTCCTT TTCAGGGAGA GCTAATGCTT GTTGGGTATT 180
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152 TTGGTTTGAC ACTGCTTCAC ACCCCCCAAA AAAAGAAGGG AGCTACGTCT GAGTTAAACT 240

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153	TGGAGATGGA AGTCTTCTTT CCTTTCTCGA CGGTGAAGTA AGACCAGCTC ATGAGCTTAT	300
154	TATCCTAGGT CGGAACAAGT TGATAGGACC CCCTTTTTA CGTCCCCATG TTCCCCCGT	360
155	GTGGCGACAT GGGCGAAAA AAGGAAAGAG AGGGATGGGG TTTCTCTCGC TTTTGGCATA	420
156	GCGGGCCCC AGTGGGAGGC TCGCACGACG GGCTATTAGC TCAGTGGTAG AGCGCGCCC	480
157	TGATAATTGC GTCGTTGTGC CTGGGCTGTG AGGGCCTCTC AGCCACATGG ATAGTTCAAT	540
158	GTGCTCATCG GCGCCTGACC CTGAGATGTG GATCATCCAA GGCACATTAG CATGGCGTAC	600
159	TCCTCCTGTT CGAACCGGGG TTTGAAACCA AACTCCTCCT CAGGAGGATA GATGGGGCGA	660
160	TTCGGGTGAG ATCCAATGTA GATCCAACTT TCGATTCACT CGTGGGATCC GGGCGGTCCG	720
161	GGGGGACAC CACGGCTCCT CTCTTCTCGA GAATCCATAC ATCCCTTATC AGTGTATGGA	780
162	CAGCTATCTC TCGAGCACAG GTTTAGCAAT GGGAAAATAA AATGGAGCAC CTAACAACGC	840
163	ATCTTCACAG ACCAAGAACT ACGAGATCGC CCCTTTCATT CTGGGGTGAC GGAGGGATCG	900
164	TACCATTCGA GCCGTTTTT TCTTGACTCG AAATGGGAGC AGGTTTGAAA AAGGATCTTA	960
165	GAGTGTCTAG GGTTGGGCCA GGAGGGTCTC TTAACGCCTT CTTTTTTCTT CTCATCGGAG	1020
166	TTATTTCACA AAGACTTGCC AGGGTAAGGA AGAAGGGGG ACAAGCACA CTTGGAGAGC	1080
167	GCAGTACAAC GGAGAGTTGT ATGCTGCGTT CGGGAAAGGAT GAATCGCTCC CGAAAAGGAA	1140
168	TCTATTGATT CTCTCCCAAT TGTTGGACC CTAGGTGCGA TGATTTACTT CACGGCGAG	1200
169	GTCTCTGGTT CAAGTCCAGG ATGCCCAAGC TGCGCCAGGG AAAAGAATAG AAGAACATC	1260
170	TGACTACTTC ATGCATGCTC CACTTGGCTC GGGGGATAT AGCTCAGTTG GTAGAGCTCC	1320
171	GCTCTTGCCTA TTGGGTGCTT GCGATTACGG GTTGGATGTC TAATTGTCCA GGCGGTAATG	1380
172	ATAGTATCTT GTACCTGAAC CGGTGGCTCA CTTTTCTAA GTAATGGGA AGAGGACCGA	1440
173	AACGTGCCAC TGAAAGACTC TACTGAGACA AAGATGGCT GTCAAGAACG TAGAGGAGGT	1500
174	AGGATGGGCA GTTGGTCAGA TCTAGTATGG ATCGTACATG GACGGTAGTT GGAGTCGGCG	1560
175	GCTCTCCCAAG GGTTCCCTCA TCTGAGATCT CTGGGGAAAGA GGATCAAGTT GGCCCTTGCCT	1620
176	AACAGCTTGA TGCACTATCT CCCTTCAACC CTTTGAGCGA AATGCGGCAA AAGAAAAGGA	1680
177	AGGAAAATCC ATGGACCGAC CCCATCATCT CCACCCCGTA GGAACCTACGA GATCACCCCA	1740
178	AGGAACGCCT TCGGCATCCA GGGTCACGG ACCGACCATA GAACCCCTGTT CAATAAGTGG	1800
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206 AACGCATTAG CTGTCCGCTC TCAGGTTGGG CAGTCAGGGT CGGAGAAGGG CAATGACTCA 1860
207 TTCTTAGTTA GAATGGGATT CCAACTCAGC ACCTTTGAG TGAGATTTG AGAAGAGTTG 1920
208 CTCTTGGAG AGCACAGTAC GATGAAAGTT GTAAGCTGTG TTGGGGGGGG AGTTATTGTC 1980
209 TATCGTTGGC CTCTATGGTA GAATCAGTCG GGGGACCTGA GAGGCGGTGG TTTACCTGC 2040
210 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258

(2) INFORMATION FOR SEQ ID NO:3:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2103 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(vi) ORIGINAL SOURCE:
(A) ORGANISM: Maize

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

GTACACACCG CCCGTCACAC TATAGGAGCT GGCCAGGTTT GAAGTCATTA CCCTTAACCG 60
TAAGGAGGGG GATGCCTAAG GCTAGGCTTG CGACTGGAGT GAAGTCGTAACCAAGGTAGCC 120
GTACTGGAAG GTGCGGCTGG ATCACCTCCT TTTCAGGGAG AGCTAAGTCT TATGCTTATT 180
GGGTATTTTG GTTGACACT GCTTCACGCC CAAAAAGAAG GCAGCTACGT CTGAGCTAAA 240
CTTGGATATG GAAGTCTTCT TTCTGTTAGG GTGAAGTAAG ACCAAGCTCA TGAGCTTATT 300
ATCCTAGGTC GGAACAAATT AGTTGATAGT GATAGGATCC CCTTTTGAC GTCCCCATGT 360
CCCCCGTGT GGCGGCATGG GGATGTCAAAGGAAAGGGA TGGAGTTTTT CTCGCTTTG 420
GCGTAGCGGC CTCCCTTGG GAGGCCGCGC GACGGGCTAT TAGCTCAGTG GTAGAGCGCG 480
CCCCTGATAA TTCTGCGTTG TGCCTCGGCT GTGAGGGCTC TCAGCCACAT GGATAGTTCA 540
ATGTGCTCAT CAGCGCCTGA CCCGAAGATG TGGATCATCC AAGGCACATT AGCATGGCGT 600
ACTCCTCCTG TTTGAATCGG AGTTGAAAC CAAACAAACT TCTCCTCAGG AGGATAGATG 660
GGGCGATTCA GGTGAGATCC CATGTAGATC GAACTTTCTA TTCACTCGTG GGATCCGGGC 720

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SEQUENCE VERIFICATION REPORT
PATENT APPLICATION **US/09/079,640**

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